	STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING  AMENDED REPORT													
APPLICATION FOR PERMIT TO DRILL									1. WELL NAME and NUMBER MU 921-20L					
2. TYPE OF WORK  DRILL NEW WELL ( REENTER P&A WELL DEEPEN WELD WELL DEEPEN WELL DEEPEN WELL DEEPEN WELL DEEPEN WELL DEEPEN WEL								3. FIELD OR WILDCAT  NATURAL BUTTES						
9 9									5. UNIT or COMMUNI	TIZATION MAVE		ENT NAM	1E	
6. NAME OF OPERATOR  KERR-MCGEE OIL & GAS ONSHORE, L.P.										7. OPERATOR PHONE				
8. ADDRESS OF OPERATOR P.O. Box 173779, Denver, CO, 80217										9. OPERATOR E-MAIL	L	anadarko		
	AL LEASE NUM	BER	F.O. BOX 1737		I. MINERAL OWNERS	HIP				12. SURFACE OWNER		anauarko	_	_
	., INDIAN, OR S	UTÚ0575			FEDERAL IND	IAN 🔵	) STATE (	) FEE(	$\circ$	-	DIAN 🔳		~	EE 💮
13. NAME	OF SURFACE	OWNER (if box 12 :	= 'fee')							14. SURFACE OWNER	R PHONE	(if box 12	= 'fee')	
15. ADDR	ESS OF SURFA	CE OWNER (if box	12 = 'fee')							16. SURFACE OWNER	R E-MAIL	(if box 12	= 'fee')	
	N ALLOTTEE OF	R TRIBE NAME			B. INTEND TO COMM		PRODUCTION	FROM		19. SLANT				
(If box 12	= 'INDIAN')				-		Iling Applicati	on) NO	0	VERTICAL DIF	RECTION	AL D	IORIZON	AL 🔵
20. LOC	TION OF WELL			FOOT	AGES	QT	r-qtr	SEC.	TION	TOWNSHIP	R	ANGE	МЕ	RIDIAN
LOCATIO	N AT SURFACE		2	381 FSL	82 FWL	N	wsw	2	0	9.0 S	2	1.0 E		S
Top of U	ppermost Prod	ucing Zone	2	381 FSL	82 FWL	N	NWSW	2	0	9.0 S	2	1.0 E		S
At Total Depth 2381			381 FSL	. 82 FWL	N	wsw	2	0 9.0 S		2	1.0 E		S	
21. COUNTY  UINTAH  22. DISTANCE TO NEAREST LEASE LINE (Feet) 82								23. NUMBER OF ACRI	<b>ES IN DR</b> 16		IT			
25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed) 130								26. PROPOSED DEPTI		TVD: 507	3			
27. ELEV	TION - GROUN	D LEVEL		28	B. BOND NUMBER					29. SOURCE OF DRILL WATER RIGHTS APPR			DDI ICAB	. =
		4818				WYB0	000291			WATER RIGHTS AFT R		3496	TT EIGAB	<u></u>
Ctrima	Uala Sina	Cooling Size	Langth	\A/a:ab	Hole, Casing	-				Comont		Cooks	Viold	Maiaht
String Surf	Hole Size	Casing Size 8.625	0 - 2840	Weigh 28.0			Max Mu			Cement Type V		Sacks 180	Yield 1.15	Weight 15.8
							-			Class G		270	1.15	15.8
Prod	7.875	4.5	0 - 5073	11.6	6 I-80 LT8	§С	8.3	3	Pren	nium Lite High Strer	ngth	160	3.38	11.0
										50/50 Poz		650	1.31	14.3
					A	TTACH	IMENTS							
	VER	IFY THE FOLLO	WING ARE A	TACHE	ED IN ACCORDAN	ICE WIT	TH THE UTA	AH OIL AI	ND GAS	CONSERVATION G	ENERA	L RULES		
<b>w</b> w	ELL PLAT OR M	AP PREPARED BY I	LICENSED SUR	EYOR O	DR ENGINEER		<b>№</b> сом	PLETE DR	ILLING PI	LAN				
AF	FIDAVIT OF STA	TUS OF SURFACE	OWNER AGREE	MENT (II	IF FEE SURFACE)		FORM	1 5. IF OPE	RATOR IS	S OTHER THAN THE LE	EASE OW	NER		
DIF	RECTIONAL SUI	RVEY PLAN (IF DIR	ECTIONALLY O	R HORIZ	ZONTALLY DRILLED	)	торо	GRAPHIC	AL MAP					
NAME Cara Mahler TITLE Regulatory Analyst I									PHONE	720 929-6029				
SIGNATU	RE			DA	ATE 11/26/2012				EMAIL	cara.mahler@anadarko	o.com			
	BER ASSIGNED 04753332(	0000		API	PROVAL		Bacqill							
Per									Perm	Permit Manager				

State 921-35C GR Drilling Program
1 of 7

# Kerr-McGee Oil & Gas Onshore, L.P.

# MU 921-20L

 Surface:
 2381 FSL / 82 FWL
 NWSW

 BHL:
 2381 FSL / 82 FWL
 NWSW

Section 20 T9S R21E

Unitah County, Utah Mineral Lease: UTU-0575

**ONSHORE ORDER NO. 1** 

# **DRILLING PROGRAM**

# 1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>		<u>Depth</u>	Resource
Uinta		0 - Surface	
Green River		1621	
Birds Nest		1891	Water
Mahogany		2387	Water
Wasatch		4973	Gas
TD	5073		

# 3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

# 4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

# 5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

# 6. <u>Evaluation Program:</u>

Please refer to the attached Drilling Program

State 921-35C GR Drilling Program 2 of 7

# 7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 5073' TVD, approximately equals 2,131 psi (0.42 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 1,017 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

# 8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application.

#### 9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

#### **Background**

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may

State 921-35C GR Drilling Program

be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

# Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

# Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

#### Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMC well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

State 921-35C GR Drilling Program
4 of 7

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

# Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

# Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

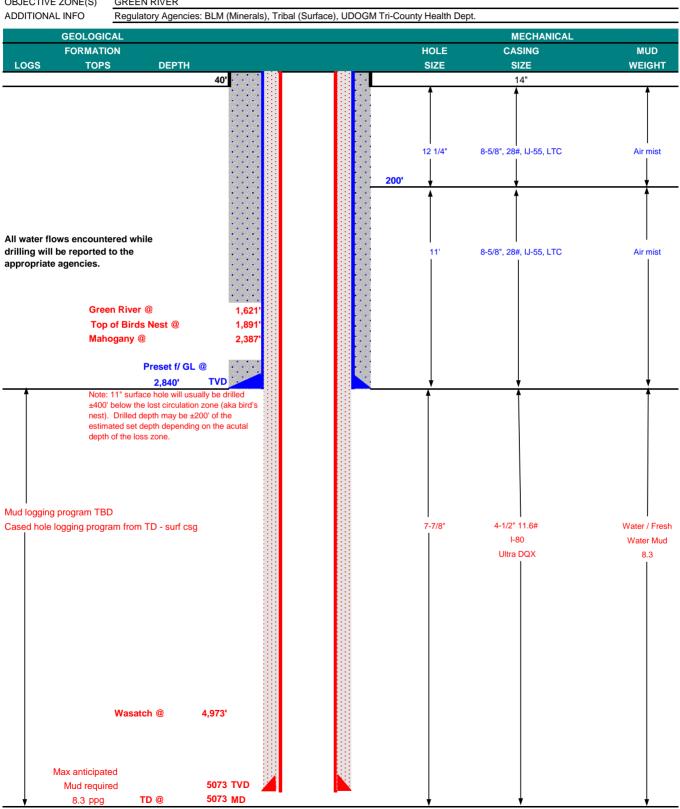
# 10. Other Information:

Please refer to the attached Drilling Program.



# KERR-McGEE OIL & GAS ONSHORE LP <u>DRILLING PROGRAM</u>

July 13, 2012 COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP WELL NAME MU 921-20L TD TVD 5073 5073 FIELD Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 4818.2 SURFACE LOCATION NWSW T 9S 2381 FSL Sec 20 R 21E -109.584716 Latitude: 40.020787 NAD 83 Longitude: BTM HOLE LOCATION NWSW 2381 FSL 82 FWL R 21E T 9S Sec 20 40.020787 -109.584716 NAD 83 Latitude: Longitude: OBJECTIVE ZONE(S) **GREEN RIVER** 





# KERR-McGEE OIL & GAS ONSHORE LP

# **DRILLING PROGRAM**

# **CASING PROGRAM**

									DESIGN	ACTORS	
										LTC	DQX
	SIZE	l	NTERVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TE	NSION
CONDUCTOR	14"		0-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,840	28.00	IJ-55	LTC	1.89	1.41	4.33	N/A
								7,780	6,350		267,035
PRODUCTION	4-1/2"	0	to	5073	11.60	I-80	DQX	1.11	2.90		5.20

**Surface Casing:** 

(Burst Assumptions: TD = 8.3 0.73 psi/ft = frac gradient @ surface shoe ppg)

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.42 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing\*Buoy.Fact. of water)

# **CEMENT PROGRAM**

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD			
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80	1.15			
Option 1		+ 0.25 pps flocele			•				
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80	1.15			
		+ 2% CaCl + 0.25 pps flocele							
SURFACE	NOTE: If well will circulate water to surface, option 2 will be utilized								
Option 2 LEAD	2,340'	65/35 Poz + 6% Gel + 10 pps gilsonite	220	35%	11.00	3.82			
		+ 0.25 pps Flocele + 3% salt BWOW			-				
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80	1.15			
		+ 0.25 pps flocele			•				
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80	1.15			
PRODUCTION LEAD	2,333'	Premium Lite II +0.25 pps	160	35%	11.00	3.38			
		celloflake + 5 pps gilsonite + 10% gel							
		+ 0.5% extender							
TAIL	2,740'	50/50 Poz/G + 10% salt + 2% gel	650	35%	14.30	1.31			
		+ 0.1% R-3							

<sup>\*</sup>Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

# **FLOAT EQUIPMENT & CENTRALIZERS**

**SURFACE** 

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

**PRODUCTION** 

Float shoe, 1 jt, float collar. No centralizers will be used.

# **ADDITIONAL INFORMATION**

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

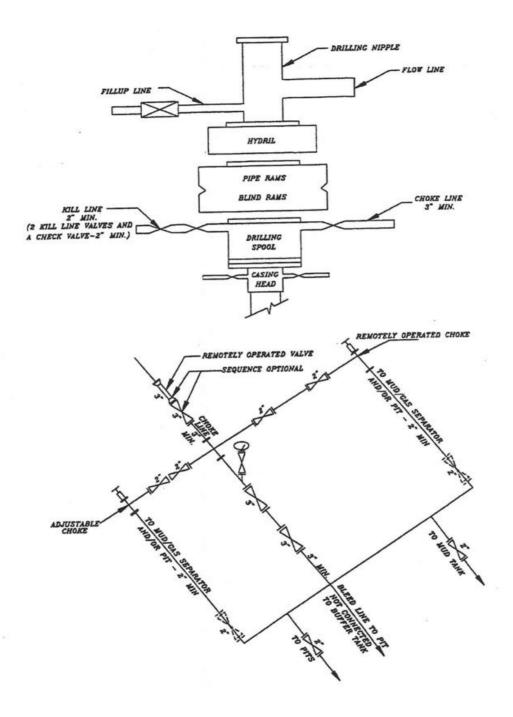
BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

Surveys will be taken a	t 1.000'	minimum	intervals.
our rojo mii bo tanon a	,000		

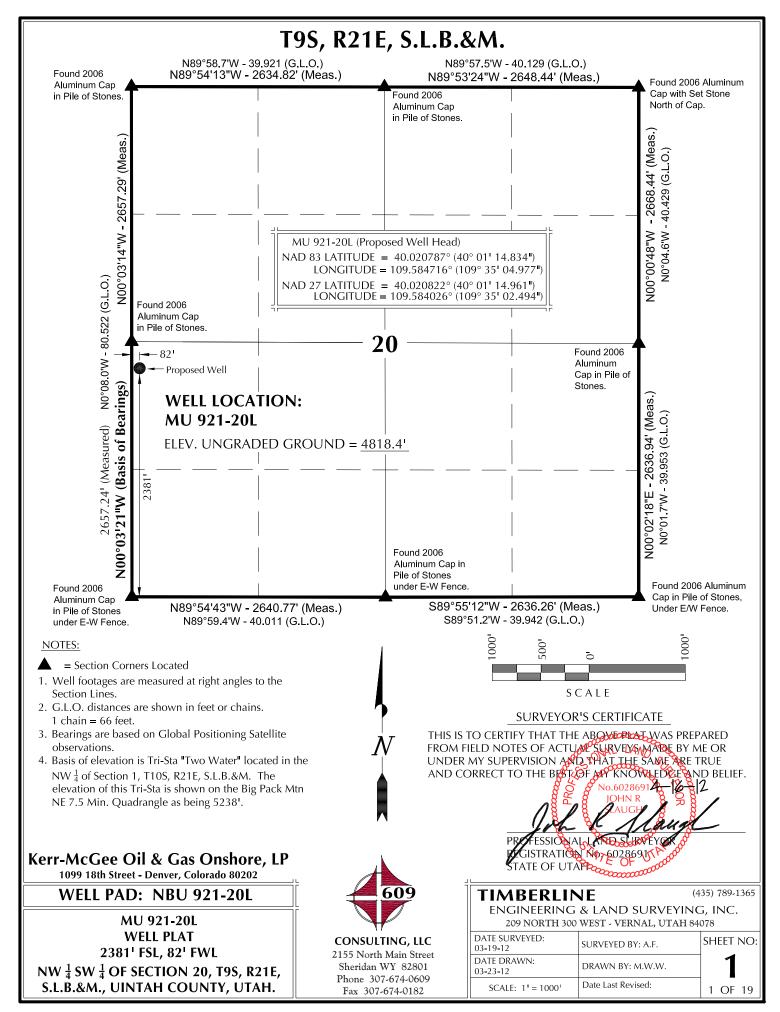
	Most rigs have i vi oysterii loi	maa monitoring. If no 1 v 1 is available, visual monitoring will be utilize	200.	
DRILLING	ENGINEER:		DATE:	
		Nick Spence / Danny Showers	_	
DRILLING	SUPERINTENDENT:		DATE:	
		Kenny Gathings / Lovel Young	_	

<sup>\*</sup>Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

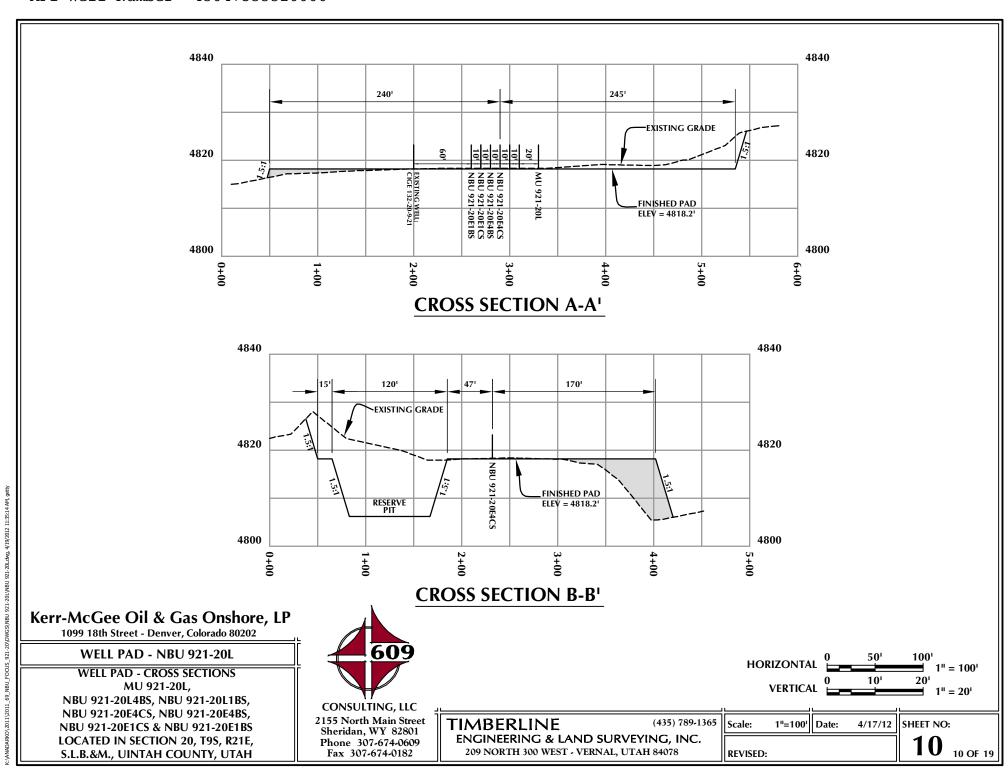
# EXHIBIT A MU 921-20L

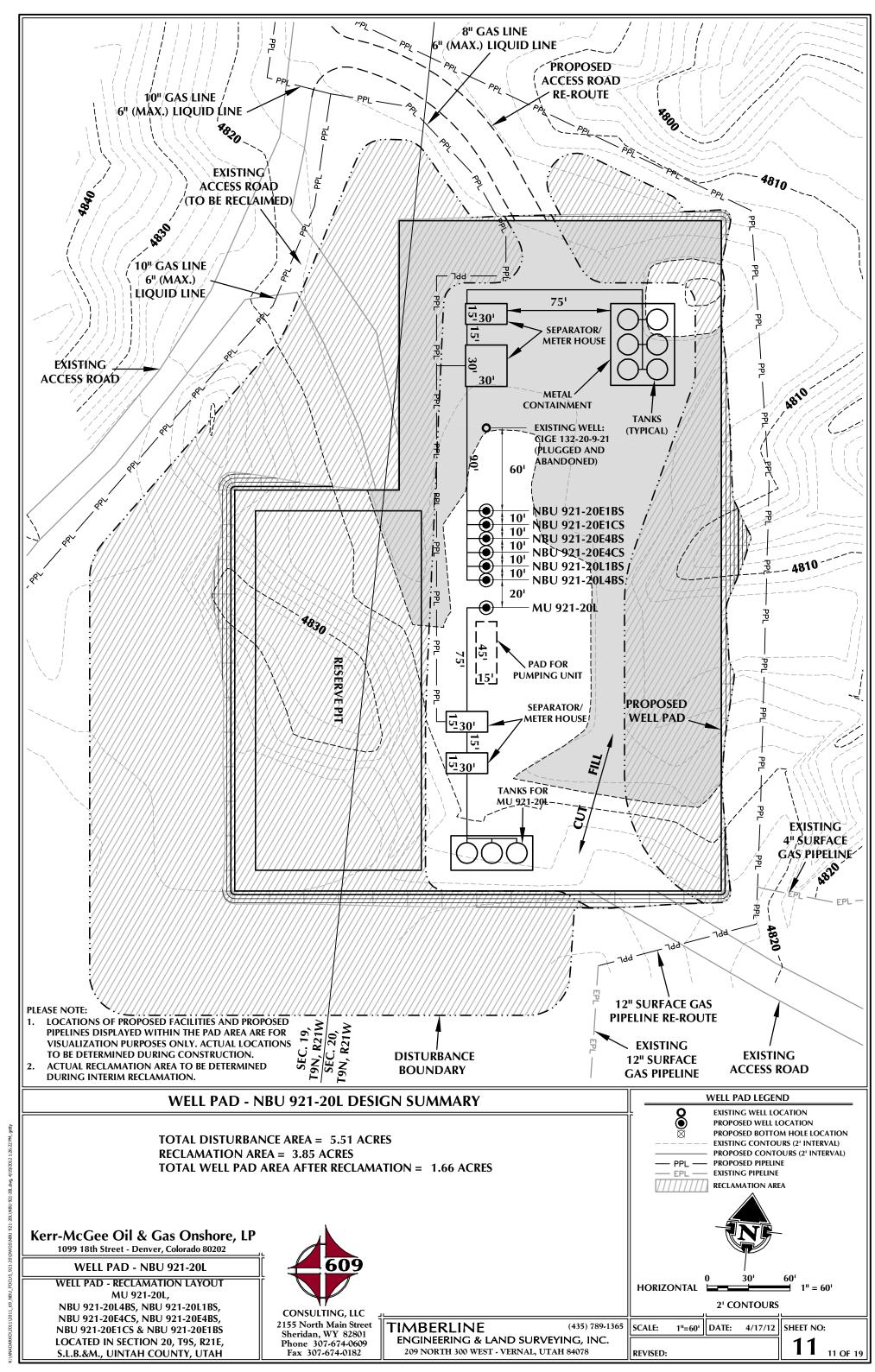


SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



MU NAME	NAI LATITUDE	D83		11150=								
	LATITUDE	LONGIT	UDE LATIT	NAD27	CITUDE	FOOTAGES	LATIT	NAD	083 LONGITUDE	NAI		FOOTAGES
	40°01'14.834"	109°35'04			5'02.494"	FOOTAGES 2381 FSL	LATIT	UDE	LONGITUDE	LATITUDE	LONGITUDE	FOOTAGES
921-20L	40.020787°	109.58471	6° 40.0208	22° 109.58	4026°	82¹ FWL				1	1	
NBU 921-20L4BS	40°01'15.030" 40.020842°	109°35'05 109.58472			5'02.522" !4034°	2401' FSL 80' FWL	40°01'0 40.019		109°34'55.504 109.582085°	" 40°01'08.590" 40.019053°	109°34'53.021' 109.581395°	1736' FSL 818' FWL
NBU	40°01'15.128"				5'02.536"		40°01'1		109:362065 109°34'55.511			
921-20L1BS	40.020869° 40°01'15.226"	109.58472				79' FWL	40.020		109.582086°	40.020864°	109.581397°	819' FWL
NBU 921-20E4CS	40°01°15.226° 40.020896°	109°35'05 109.58473			5'02.549" 34042°	2420' FSL 78' FWL	40°01'1 40.021		109°34'55.522  109.582089°	" 40°01'18.612" 40.021837°	109°34'53.038' 109.581399°	2564' FNL 819' FWL
NBU	40°01'15.324"	109°35'05	.047" 40°01'15	.451" 109°3.	5'02.563"	2430' FSL	40°01'2	21.755"	109°34'55.531	" 40°01'21.883"	109°34'53.048'	2233' FNL
921-20E4BS NBU	40.020923° 40°01'15.423"	109.58473 109°35'05			54045° 5'02.577"	77' FWL 2440' FSL	40.0221 40°01'2		109.582092° 109°34'55.541	40.022745° " 40°01'25.153"	109.581402° 109°34'53.057'	819' FWL 1902' FNL
921-20E1CS	40.020951°	109-33-03			64049°	76' FWL	40.023		109-34-33.341 109.582095°	40.023654°	109-34-53.05/ 109.581405°	819' FWL
NBU 021 2051 PC	40°01'15.521"				5'02.591"	2450 FSL	40°01'2		109°34'55.550			
921-20E1BS CIGE	40.020978° 40°01'16.110"	109.58474 109°35'05		3°   109.58  -237"   109°3.		75' FWL 2510' FSL	40.024	52/-	109.582097°	40.024562°	109.581407°	819' FWL
132-20-9-21	40.021142°	109.58476				68' FWL						
			RELA	TIVE COORE	INATES	- From Surface		to Botto	om Hole			
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS		NAME	NOR	TH EAST		1E NORTH	EAST
NBU 921-20L4BS	-665.7'	738.5'	NBU 921-20L1BS	-15.6	739.	9 NBU 921-20	DE4CS	328.	.9' 740.6'	NBU 921-20E4B	649.91	741.4'
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAS	т					•	
NBU 921-20E1CS	971.0'	742.11	NBU 921-20E1BS	1,292.0	742.	91			<b>4</b>		1	
EXISTING WELL: CIGE 132-20-9-21 (Dry Hole Marker)  BASIS OF BEARINGS IS THE WEST LINE OF THE SW 1/2 OF SECTION 20, T9S, R21E, S.L.B.&M. WHICH IS TAKEN FROM GLOBAL POSITIONING SATELLITE OBSERVATIONS TO BEAR N00°03'21"W.  Az. to Exist. W.H.=353.8447° 80.0' NBU 921-20E1BS Az. to Exist. W.H.=353.8447° 80.0' NBU 921-20E4BS Az. to Exist. W.H.=353.8459° 90.0' NBU 921-20L1BS Az. to Exist. W.H.=353.8459° 100.0' NBU 921-20L1BS Az. to Exist. W.H.=353.8450° 109.9' NBU 921-20L1BS Az. to Exist. W.H.=353.8450° 109.9' NBU 921-20L1BS Az. to Exist. W.H.=353.8450° 109.9' NBU 921-20L1BS Az. to Exist. W.H.=353.8450° 130.0' MU 921-20L												
WEL  WBL  NBU  NBU  NBU	Gee Oil & 8th Street - De L PAD - L PAD INTE WELLS - M J 921-20L4BS, J 921-20E4CS, 921-20E1CS & ATED IN SECT	RFERENC U 921-20L NBU 921- NBU 921- NBU 921- & NBU 921	21-20L CE PLAT , 20L1BS, 20E4BS, 1-20E1BS	LP	2155 No Sherid	609 ULTING, LL orth Main Stre an WY 8280 307-674-060	C ceet	DATE 03-19 DATE 03-23	S C A L E  MBERL  NGINEERIN 209 NORTH  E SURVEYED: 9-12 E DRAWN:	JOINE OS OG OF THE OF T	(4 SURVEYING RNAL, UTAH 84 3Y; A.F.	· .





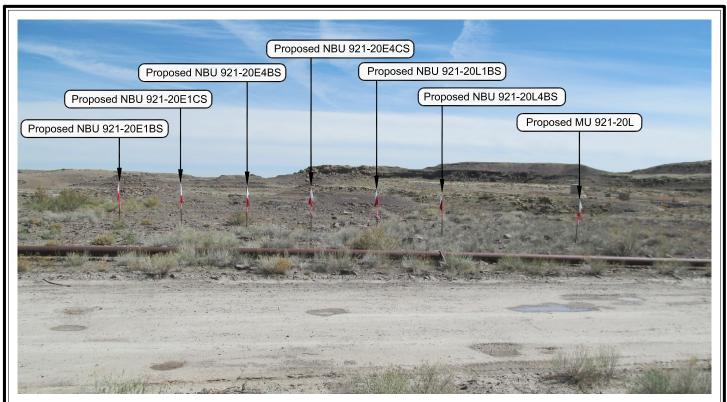


PHOTO VIEW: FROM CORNER #5 TO LOCATION STAKE





PHOTO VIEW: FROM BEGINNING OF PROPOSED ROAD

# **CAMERA ANGLE: SOUTHEASTERLY**

# Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

# WELL PAD - NBU 921-20L

**LOCATION PHOTOS** MU 921-20L, NBU 921-20L4BS, NBU 921-20L1BS, NBU 921-20E4CS, NBU 921-20E4BS, NBU 921-20E1CS & NBU 921-20E1BS LOCATED IN SECTION 20, T9S, R21E, S.L.B.&M., UINTAH COUNTY, UTAH.



# CONSULTING, LLC 2155 North Main Street Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

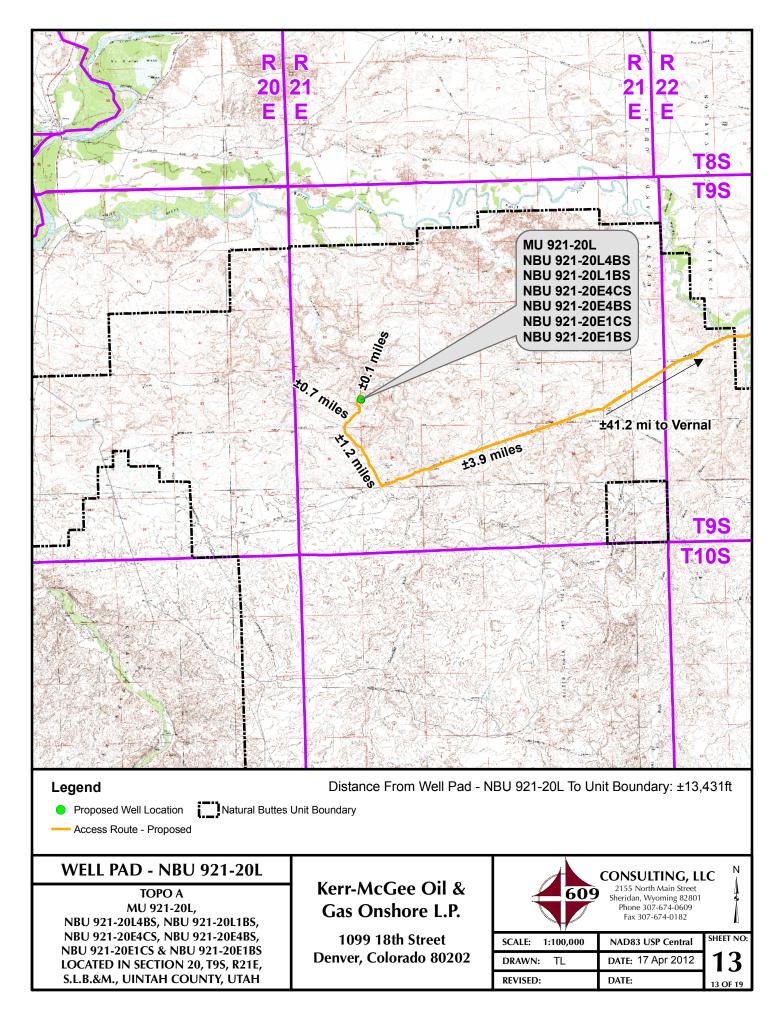
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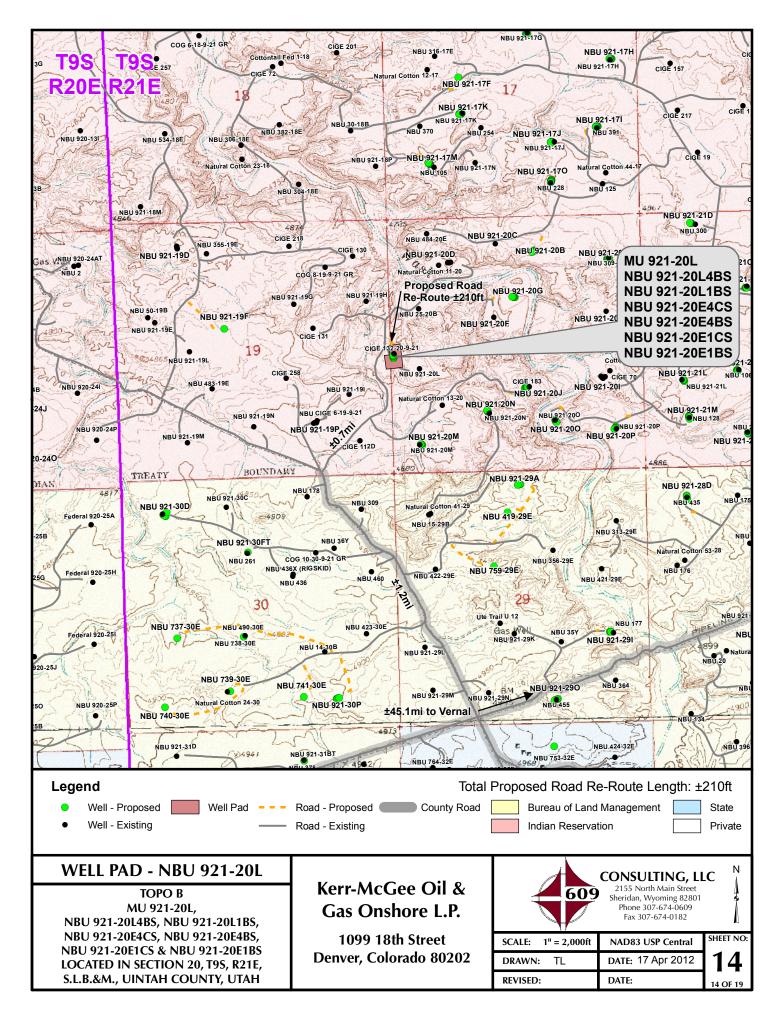
(435) 789-1365

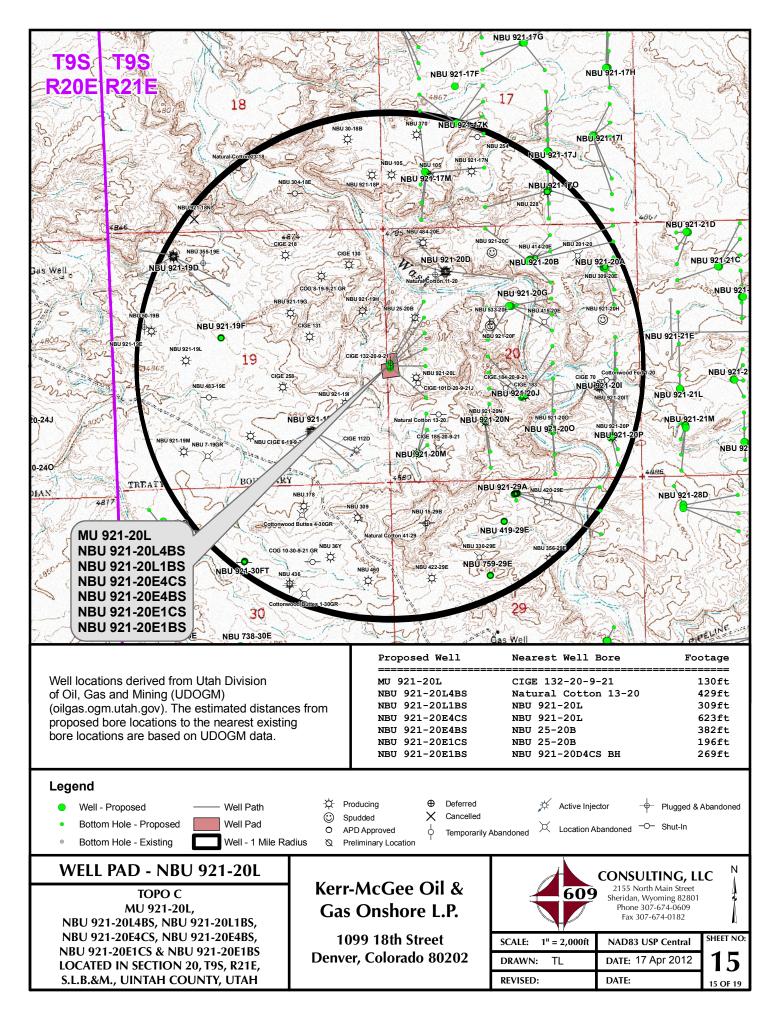
12 OF 19

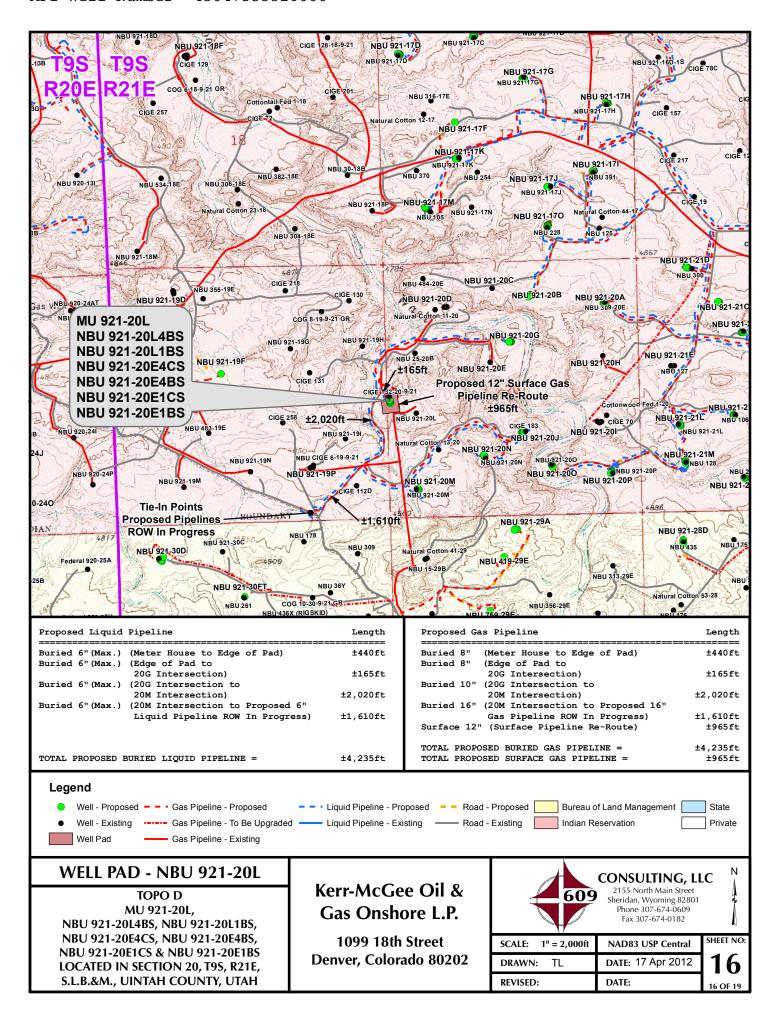
ENGINEERING & LAND SURVEYING, INC. 209 NORTH 300 WEST - VERNAL, UTAH 84078

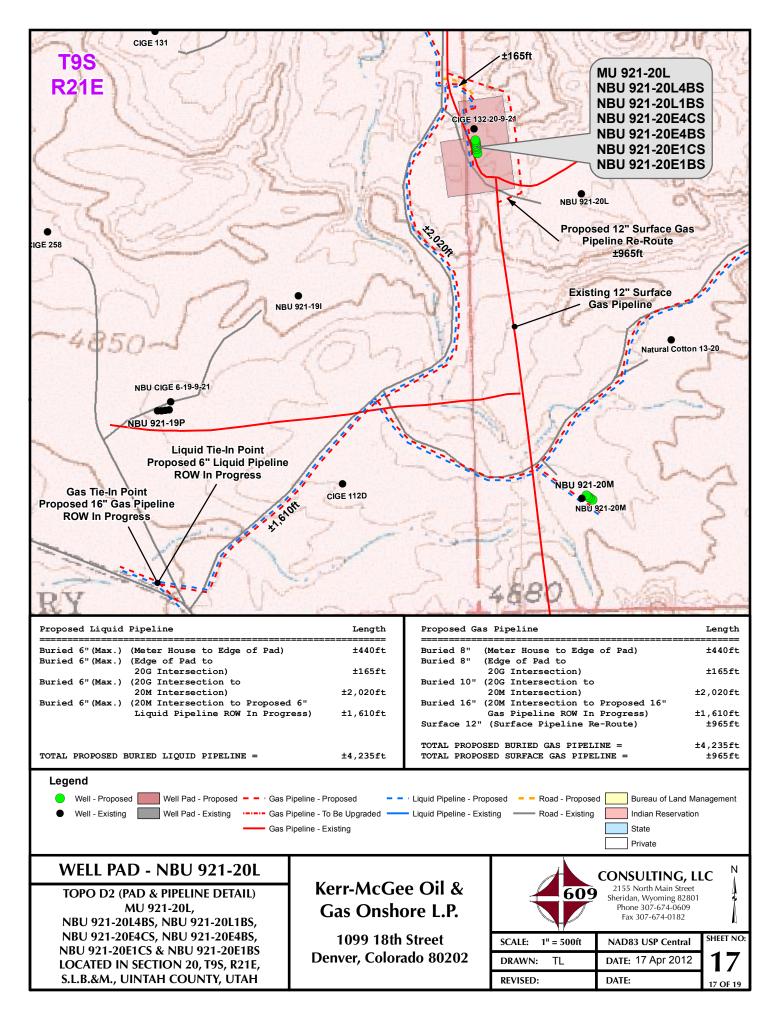
DATE PHOTOS TAKEN: 03-19-12	PHOTOS TAKEN BY: A.F.	SHEET NO:
DATE DRAWN: 03-23-12	DRAWN BY: M.W.W.	12
Date Last Revised:		12 OF 19

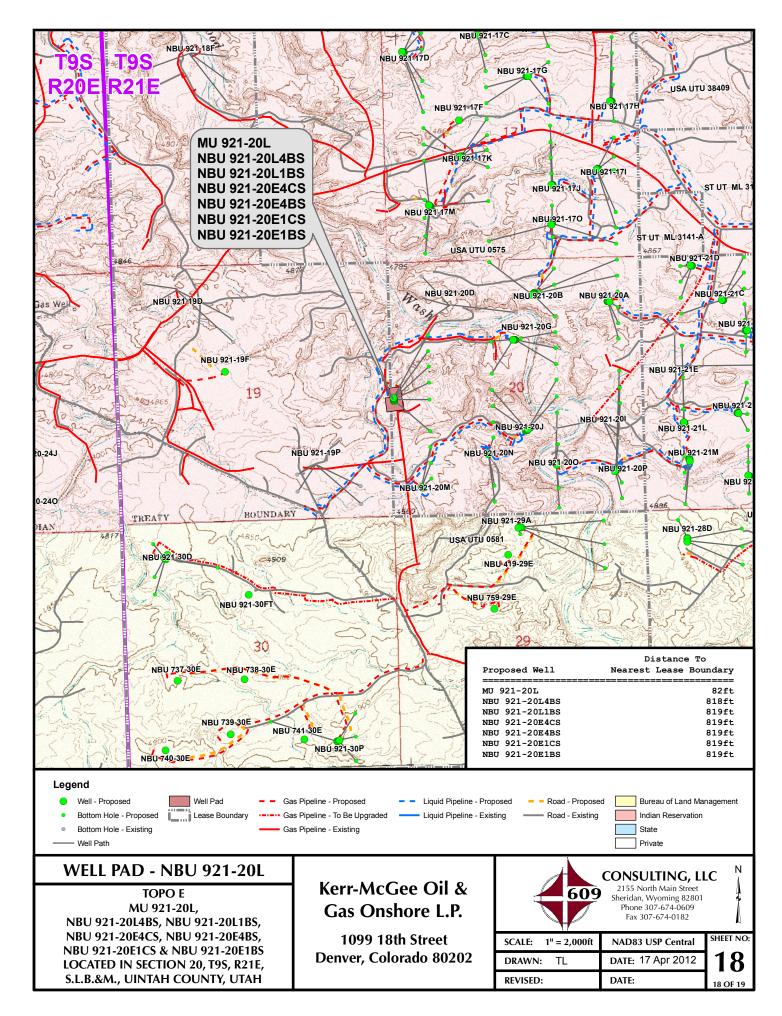












Kerr-McGee Oil & Gas Onshore, LP WELL PAD - NBU 921-20L WELLS - MU 921-20L, NBU 921-20L4BS, NBU 921-20L1BS, NBU 921-20E4CS, NBU 921-20E4BS, NBU 921-20E1CS & NBU 921-20E1BS Section 20, T9S, R21E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly, then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 17.7 miles to a Class D County Road to the southwest. Exit right and proceed in a southwesterly direction along the Class D County Road approximately 3.9 miles to a second Class D County Road to the northwest. Exit right and proceed in a northwesterly direction along the second Class D County Road approximately 1.2 miles to a Tribal Road to the northeast. Exit right and proceed in a northeasterly, then northerly direction along the Tribal Road approximately 0.7 miles to the proposed access road to the southeast. Follow road flags in a southeasterly direction approximately 210 feet to the proposed well location.

Total distance from Vernal, Utah to the proposed well location is approximately 47.0 miles in a southerly direction.

**SHEET 19 OF 19** 

MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

# Kerr-McGee Oil & Gas Onshore. L.P.

# NBU 921-20L Pad

<u>API #</u>		MU 921-20L	_	
S	urface:	2381 FSL / 82 FWL	NWSW	Lot
	BHL:	2381 FSL / 82 FWL	NWSW	Lot
<u>API #</u>	<u> </u>	NBU 921-20E1BS	_	
S	urface:	2450 FSL / 75 FWL	NWSW	Lot
	BHL:	1571 FNL / 819 FWL	SWNW	Lot
API #	ı	NBU 921-20E1CS		
S	urface:	2440 FSL / 76 FWL	NWSW	Lot
	BHL:	1902 FNL / 819 FWL	SWNW	Lot
<u>API #</u>	ı	NBU 921-20E4BS		
S	urface:	2430 FSL / 77 FWL	NWSW	Lot
	BHL:	2233 FNL / 819 FWL	SWNW	Lot
<u>API #</u>	ı	NBU 921-20E4CS		
S	urface:	2420 FSL / 78 FWL	NWSW	Lot
	BHL:	2564 FNL / 819 FWL	SWNW	Lot
<u>API #</u>	ı	NBU 921-20L1BS		
	urface:	2410 FSL / 79 FWL	NWSW	Lot
	BHL:	2396 FSL / 819 FWL	NWSW	Lot
<u>API #</u>	ı	NBU 921-20L4BS		
· <del></del>	urface:	2401 FSL / 80 FWL	NWSW	Lot
_	BHL:	1736 FSL / 818 FWL	NWSW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on May 8, 2012. Present were:

- David Gordon, Melissa Wardle, Tyler Cox BLM;
- · Bucky Secakuku BIA;
- Brad Pinecoose Ute Indian Tribe;
- · Amy Ackman Montgomery Archeological Consultants Inc.;
- Scott Carson Smiling Lake Consulting;
- · John Slaugh, Mitch Batty Timberline Engineering & Land Surveying, Inc.;
- · Danielle Piernot, Raleen White, Doyle Holmes, Rod Anderson, Charles Chase Kerr-McGee
- · Tim Horgan-Kobelski Grasslands Consulting, Inc.
- Justin Strauss SWCA Environmental Consultants

# A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

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MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

#### B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BIA.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet, except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

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MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

 $\pm 210'~(0.04~miles)$  – Section 20 (NW/4 SW/4) T9S R21E – On lease UTU0575 Ute Indian Tribe surface, road re-route from the edge of the pad to the existing road to the north. Please refer to Topo B.

#### C. Location of Existing Wells:

A) Refer to Topo Map C.

# D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the CIGE 132-20-9-21, which is a plugged and abandoned well according to Utah Division of Oil, Gas and Mining (UDOGM) records on June 28, 2012. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accommodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

# GAS GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is  $\pm 5,200$ ' and the individual segments are broken up as follows:

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

- ±4,235' (0.8 miles) Section 20 and Section 19 T9S R21E– On-lease UTU0575 and UTU0581 Ute Indian Tribe Surface, New 8", 10" and 16" buried gas gathering pipeline from the meter to a proposed 16" gas pipeline. Please refer to Topo D2 Pad and Pipeline Detail.
- $\pm 965^{\circ}$  (0.2 miles) Section 20 and Section 19 T9S R21E– On-lease UTU0575 and UTU0581 Ute Indian Tribe Surface, Re-route 12" surface gas gathering pipeline. Please refer to Topo D2 Pad and Pipeline Detail.

# LIQUID GATHERING

Please refer to Topo D2- Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is  $\pm 4,235$ ° and the individual segments are broken up as follows:

The following segments will require a ROW to be submitted under a different cover to the Ute Indian Tribe.

±4,235' (0.8 miles) – Section 20 and Section 19 T9S R21E- On-lease UTU0575 and UTU0581 Ute Indian Tribe Surface, New 6" buried liquid gathering pipeline from the separator to a proposed 6" liquid pipeline. Please refer to Topo D2 - Pad and Pipeline Detail.

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MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

#### **Pipeline Gathering Construction**

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' disturbance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent disturbance width is for maintenance and repairs. Cross country permanent disturbance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter, but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

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Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the Vernal BIA Office before terminating of the use of the pipeline(s).

#### The Anadarko Completions Transportation System (ACTS) information:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or used as part of our Anadarko Completions Transportation (ACTS) system which is discussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors.

Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The temporary ACTS lines will be permitted under a separate cover to the Ute Indian Tribe.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BIA considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BIA.

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#### E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

#### F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from Tribal lands without prior approval from the BIA. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BIA.

#### G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BIA, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BIA, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc.). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BIA. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BIA.

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MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

#### **Materials Management**

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P. Surface Use Plan of Operations 8 of 12

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

#### H. Ancillary Facilities:

ancillary facilities are

# I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of disturbance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BIA.

# J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

#### Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BIA for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Surface Use Plan of Operations 9 of 12

MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

#### **Final Reclamation**

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BIA will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BIA/Tribe. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications as proposed below in "Measures Common to Interim and Final Reclamation".

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BIA/Tribe.

# **Measures Common to Interim and Final Reclamation**

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for

re-vegetation. The seed mixes will be selected from a list provided by or approved by the BIA/Tribe or a specific seed mix will be proposed by Kerr-McGee to the BIA/Tribe and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Surface Use Plan of Operations 10 of 12

MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Indian Ricegrass (Nezpar)	3
Sandberg Bluegrass	0.75
Bottlebrush Squirreltail	1
Great Basin Wildrye	0.5
Crested Wheatgrass	1.5
Winterfat	0.25
Shadscale	1.5
Four-wing Saltbrush	0.75
Forage Kochia	0.25
Total	9.5

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

#### Weed Control

Noxious weeds will be controlled in akk orihect areas un accordance with all applicable rules and regulations.

#### K. Surface/Mineral Ownership:

Ute Indian Tribe

P.O. Box 70

Bureau of Land Management

988 South 7500 East Annex Building

Fort Duschesne, UT 84026

(435) 722-4307

United States of America

Bureau of Land Management

170 South 500 East

Vernal, UT 84078

(435)781-4400

# L. Other Information:

#### **Onsite Specifics:**

• No changes

#### **Cultural and Paleontological Resources**

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BIA.

# **Resource Reports:**

A Class I literature survey report was completed on May 21, 2012 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 12-152.

A paleontological reconnaissance survey was completed on April 10-16, 2012 by SWCA Environmental Consultants. For additional details please refer to report UT12-14314-101 and UT12-14314-122.

Biological field survey was completed on April 10-13, 2012 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-769 and GCI-776.

MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

# **Proposed Action Annual Emissions Tables:**

Table 1: Proposed Action Annual Emissions (tons/year) <sup>1</sup>							
Pollutant	Development	Production	Total				
NOx	3.8	0.12	3.92				
CO	2.2	0.11	2.31				
VOC	0.1	4.9	5				
SO <sub>2</sub>	0.005	0.0043	0.0093				
$PM_{10}$	1.7	0.11	1.81				
PM <sub>2.5</sub>	0.4	0.025	0.425				
Benzene	2.2E-03	0.044	0.046				
Toluene	1.6E-03	0.103	0.105				
Ethylbenzene	3.4E-04	0.005	0.005				
Xylene	1.1E-03	0.076	0.077				
n-Hexane	1.7E-04	0.145	0.145				
Formaldehyde	1.3E-02	8.64E-05	1.31E-02				

<sup>&</sup>lt;sup>1</sup> Emissions include 1 producing well and associated operations traffic during the year in

which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison						
Species	Proposed Action Production Emissions (ton/yr)	WRAP Phase III 2012 Uintah Basin Emission Inventory <sup>a</sup> (ton/yr)	to WRAP Phase			
NOx	27.44	16,547	0.17%			
VOC	35	127,495	0.03%			

a http://www.wrapair.org/forums/ogwg/PhaseIII\_Inventory.html

Uintah Basin Data

MU 921-20L/ NBU 921-20E1BS/ 921-20E1CS/ 921-20E4BS NBU 921-20E4CS/ 921-20L1BS/ 921-20L4BS Kerr-McGee Oil Gas Onshore, L.P.

#### M. Lessee's or Operators' Representative & Certification:

Danielle Piernot Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6156 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

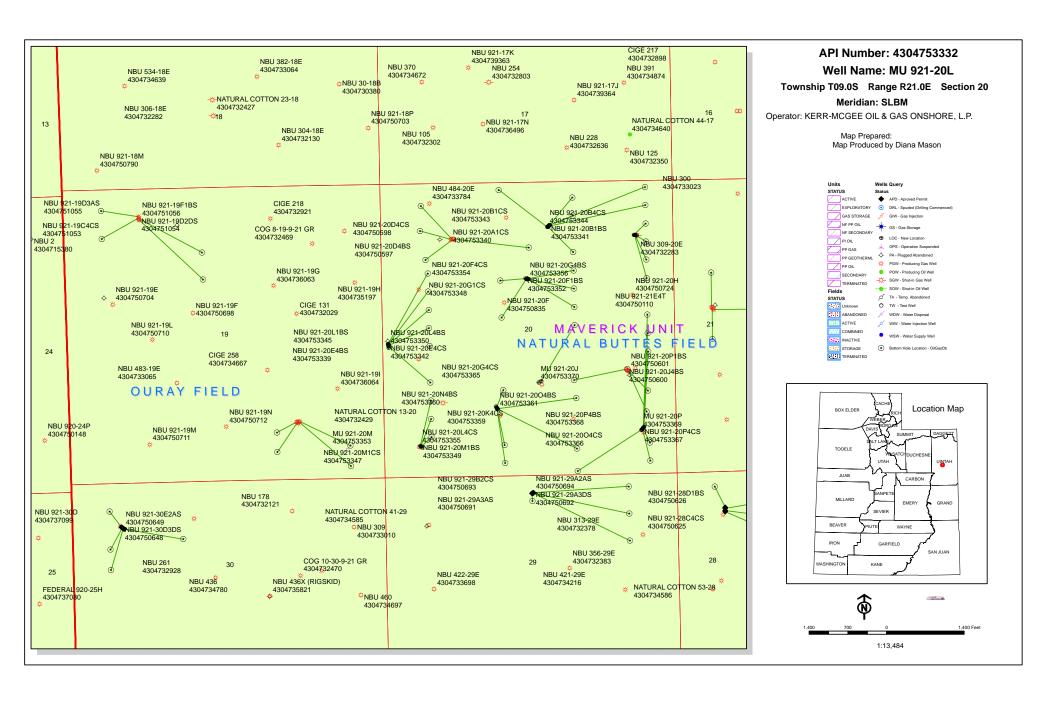
Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Danielle Piernot

June 22, 2012

Date



# **United States Department of the Interior**

# BUREAU OF LAND MANAGEMENT

Utah State Office P.O. Box 45155 Salt Lake City, Utah 84145-0155

IN REPLY REFER TO: 3160 (UT-922)

December 13, 2012

Memorandum

To: Assistant Field Office Manager Minerals

Vernal Field Office

From: Michael Coulthard, Petroleum Engineer

Subject: 2012 Plan of Development Maverick Unit,

Uintah County, Utah.

Pursuant to email between Diana Whitney, Division of Oil, Gas and Mining, and Mickey Coulthard, Utah State Office, Bureau of Land Management, the following wells are planned for calendar year 2012 within the Maverick Unit, Uintah County, Utah.

API # WELL NAME LOCATION

(Proposed PZ GREEN RIVER)

43-047-53329	MU	921-20A	Sec	20	T09S	R21E	0954	FNL	0659	FEL
43-047-53332	MU	921-20L	Sec	20	T09S	R21E	2381	FSL	0082	FWL
43-047-53353	MU	921-20M	Sec	20	T09S	R21E	0563	FSL	0641	FWL
43-047-53357	MU	921-20N	Sec	20	T09S	R21E	1282	FSL	1993	FWL
43-047-53369	MU	921-20P	Sec	20	T09S	R21E	0804	FSL	0638	FEL
43-047-53370	MU	921-20J	Sec	20	T09S	R21E	1705	FSL	2477	FEL

This office has no objection to permitting the wells at this time.

Michael L. Coulthard

Digitally signed by Michael L. Coulthard

DN: cn=Michael L. Coulthard, o=Bureau of Land Management,
DuBeranch of Minerals, email=Michael\_Coulthard@elbim.gov, c=US
Date: 2012.12.13 1204301 97000

bcc: File - Maverick Unit

Division of Oil Gas and Mining

Central Files Agr. Sec. Chron Fluid Chron

MCoulthard:mc:12-13-12

RECEIVED: December 13, 2012

API Well Number: 43047533320000

## **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 11/26/2012 API NO. ASSIGNED: 43047533320000

WELL NAME: MU 921-20L

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6029

**CONTACT:** Cara Mahler

PROPOSED LOCATION: NWSW 20 090S 210E **Permit Tech Review:** 

> SURFACE: 2381 FSL 0082 FWL **Engineering Review:**

> BOTTOM: 2381 FSL 0082 FWL Geology Review:

**COUNTY: UINTAH** 

**LATITUDE**: 40.02073 LONGITUDE: -109.58462 UTM SURF EASTINGS: 620782.00 NORTHINGS: 4431017.00

FIELD NAME: NATURAL BUTTES LEASE TYPE: 1 - Federal

**LEASE NUMBER: UTU**0575 PROPOSED PRODUCING FORMATION(S): GREEN RIVER

SURFACE OWNER: 2 - Indian **COALBED METHANE: NO** 

**RECEIVED AND/OR REVIEWED: LOCATION AND SITING:** ✓ PLAT R649-2-3. Unit: MAVERICK Bond: FEDERAL - WYB000291

**Potash** R649-3-2. General

Oil Shale 190-5 Oil Shale 190-3 R649-3-3. Exception

Oil Shale 190-13 **Drilling Unit** 

Board Cause No: Cause 197-13 Water Permit: 43-8496

Effective Date: 8/21/2012 **RDCC Review:** 

Siting: 460' Fr U Bdry & Uncommitted Tract Fee Surface Agreement

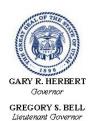
Intent to Commingle R649-3-11. Directional Drill

**Commingling Approved** 

Comments: Presite Completed

Stipulations:

4 - Federal Approval - dmason 17 - Oil Shale 190-5(b) - dmason



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

## Permit To Drill

\*\*\*\*\*\*

Well Name: MU 921-20L

**API Well Number:** 43047533320000

Lease Number: UTU0575 Surface Owner: INDIAN Approval Date: 12/18/2012

#### Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

#### Authority:

Pursuant to Utah Code Ann. 40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 197-13. The expected producing formation or pool is the GREEN RIVER Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

## **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

#### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

## **Conditions of Approval:**

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with the Order in Cause No. 190-5(b) dated October 28, 1982, the operator shall comply with the requirements of Rules R649-3-31 and R649-3-27 pertaining to Designated Oil Shale Areas. Additionally, the operators shall ensure that the surface and or production casing is properly cemented over the entire oil shale section as defined by Rule R649-3-31. The Operator shall report the actual depth the oil shale is encountered to the division.

## **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well - contact Carol Daniels at 801-538-5284

(please leave a voicemail message if not available) OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website

at http://oilgas.ogm.utah.gov

## Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
  - Requests to Change Plans (Form 9) due prior to implementation
  - Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
  - Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas Form 3160-3 (August 2007)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

BUREAU OF LAND	MANAGEMENT AUG 23 2012	5. Lease Serial No. UTU0575	
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe Name	3
1a. Type of Work: ☑ DRILL ☐ REENTER	· ·	7. If Unit or CA Agreement, Name UTU88574X	and No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Oth	her Single Zone  Multiple Zone	8. Lease Name and Well No. MU 921-20L	
2. Name of Operator Contact: KERR MCGEE OIL&GAS ONSHOREMALPDanielle	DANIELLE PIERNOT .Piernot@anadarko.com	9. API Well No. 43-047-53332	)_ ,
3a. Address PO BOX 173779 DENVER, CO 80202-3779	3b. Phone No. (include area code) Ph: 720-929-6156 Fx: 720-929-7156	10. Field and Pool, or Exploratory NATURAL BUTTES	
4. Location of Well (Report location clearly and in accorded	nce with any State requirements.*)	11. Sec., T., R., M., or Blk. and Sur	vey or Area
At surface NWSW 2381FSL 82FWL 4	0.020787 N Lat, 109.584716 W Lon	Sec 20 T9S R21E Mer SLE	3
At proposed prod. zone NWSW 2381FSL 82FWL 4	0.020787 N Lat, 109.584716 W Lon		
14. Distance in miles and direction from nearest town or post APPROXIMATELY 47 MILES SOUTH OF VERM		12. County or Parish UINTAH COUNTY	13. State UT
<ol> <li>Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> <li>82'</li> </ol>	16. No. of Acres in Lease 1600.00	17. Spacing Unit dedicated to this w	vell
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. on file	
130'	5073 MD 5073 TVD	WYB000291	
21. Elevations (Show whether DF, KB, RT, GL, etc. 4818 GL	22. Approximate date work will start 02/01/2013	23. Estimated duration 60-90 DAYS	
<u>:</u>	24. Attachments	(MA) 0 2010	
The following, completed in accordance with the requirements of	f Onshore Oil and Gas Order No. 1, shall be attached to the	nis form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syste SUPO shall be filed with the appropriate Forest Service Off</li> </ol>	Item 20 above). 5. Operator certification	ormation and/or plans as may be requir	•
25. Signature (Electronic Submission)	Name (Printed/Typed) DANIELLE PIERNOT Ph: 720-929-6156	Date 07/2	13/2012
Title REGULATORY ANALYST II			er .
Approved by (Signature)	Name (Printed/Typed)  Jerry Kenczka	Date.	<b>1</b> 2013
Title Assistant Field Manager	Office VERNAL FIELD OFFICE		

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

CONDITIONS OF APPROVAL ATTACHED

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

Additional Operator Remarks (see next page)

Lands & Mineral Resources

Electronic Submission #142887 verified by the BLM Well Information System For KERR MCGEE OIL&GAS ONSHORE, LP, sent to the Vernal

NOTICE OF APPROVAL

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

12PPH2785AZ

NOS-4/25/12



## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

**VERNAL. UT 84078** 

(435) 781-4400



## CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

API No:

Kerr McGee Oil & Gas Onshore, LP

170 South 500 East

MU 921-20L

43-047-53332

Location: Lease No: Agreement: NWSW, Sec. 20, T9S, R21E

UTU-0575 Maverick Unit

**OFFICE NUMBER:** 

(435) 781-4400

**OFFICE FAX NUMBER:** 

(435) 781-3420

## A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

## NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	-	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	-	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	-	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

## SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horsepower must not emit more than 2 gms of NO<sub>x</sub> per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower.
- All and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gms of NO<sub>x</sub> per horsepower-hour.
- If there is an active Gilsonite mining operation within 2 miles of the well location, operator shall notify the Gilsonite operator at least 48 hours prior to any blasting during construction.
- If paleontological materials are uncovered during construction, the operator is to immediately stop
  work and contact the Authorized Officer (AO). A determination will be made by the AO as to what
  mitigation may be necessary for the discovered paleontologic material before construction can
  continue.
- Paint facilities "Shadow Gray."
- Conduct a raptor survey prior to construction operations if such activities would take place during raptor nesting season (January 1 through September 30). If active raptor nests are identified during the survey, operations should be conducted according to the seasonal restrictions detailed in the Uinta-Basin-specific RMP guidelines and spatial offsets specified by the USFWS Utah Raptor Guidelines.
- If construction operations are not initiated prior to April 19, 2013, an additional biological survey for Uinta Basin hookless cactus should be conducted prior construction according to current USFWS protocol. Utilize cactus protection measures contained in the GNB BO for cacti within 300 feet of disturbance.
- Monitor construction with a permitted archaeologist.
- Monitor road re-route, well pad, and pipeline construction with a permitted paleontologist.
- Cut and bury old P&A marker.
- Re-route existing pipeline around pad.
- If quarter corner marker at Corner #8 needs to be moved for construction, resurvey and reestablish the marker.

Page 3 of 6 Well: MU 921-20L 4/30/2013

# DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

#### SITE SPECIFIC DOWNHOLE COAs:

- Production casing cement shall be brought up and into the surface.
- Surface casing cement shall be brought to surface.
- A BOPE system rated at 3M will meet the requirement, per the specifications of Onshore Order #2. The BOPE equipment shall be tested to 3M BOPE test requirements.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

#### DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.
- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal Field Office.

Page 4 of 6 Well: MU 921-20L 4/30/2013

- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
   Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in CD (compact disc) format to the Vernal BLM Field Office. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

Page 5 of 6 Well: MU 921-20L 4/30/2013

#### **OPERATING REQUIREMENT REMINDERS:**

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <a href="https://www.ONRR.gov">www.ONRR.gov</a>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
  notified when it is placed in a producing status. Such notification will be by written communication
  and must be received in this office by not later than the fifth business day following the date on
  which the well is placed on production. The notification shall provide, as a minimum, the following
  informational items:
  - Operator name, address, and telephone number.
  - Well name and number.
  - Well location (¼¼, Sec., Twn, Rng, and P.M.).
  - Date well was placed in a producing status (date of first production for which royalty will be paid).
  - o The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
  - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
  - o Unit agreement and/or participating area name and number, if applicable.
  - o Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

Page 6 of 6 Well: MU 921-20L 4/30/2013

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
  Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
  future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
  BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
  hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
  be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
  lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
  suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
  obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
  equipment shall be removed from a well to be placed in a suspended status without prior approval
  of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
  approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
  of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

Sundry Number: 43862 API Well Number: 43047533320000

STATE OF UTAH  DEPARTMENT OF MATURAL RESOURCES DIVISION OF OTIL, GAS, AND MINING  SUNDRY NOTICES AND REPORTS ON WELLS  BUNDRY NOTICES AND REPORTS ON WELLS  SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to drill new wells, significantly deepen existing wells below control to the mode depth, recenter plugged wells, or to drill horizontal latorals. Use APPLICATION  FOR PERMIT TO DRILL from for such proposals.  I. WELL NAME and NUMBER:  VERY NOTICE OF ACTION  J. APPLICATION  J. APPLI				
DIVISION OF OIL, GAS, AND MINING  SUNDRY NOTICES AND REPORTS ON WELLS  Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reserved plugged wells, or to drill horizontal laterals. Use APPLICATION POR PERMIT TO DRILL form for dutil proposals.  1. YIVER OF WELL OI Novel  ANDERSSO FORERACE: SAPRIMER: ADDRESSO FORERACE: POR BEAMT TO SHANDER: POR BEAMT TO SHANDER: ADDRESSO FORERACE: UITAH  11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA  TYPE OF SUBMISSION  TYPE OF SUBMISSION  TYPE OF ACTION  ACTOR OF SHANDER: ADDRESSO FOR BEAMT TO SHANDER: BEAMT TO SH				FORM 9
Do not use this form for proposals to drill new wells, significantly despen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION PROPERTY TO DRILL form for such proposals.  1. TYPE OF WELL  OII Well  2. NAME OF OPERATOR: KERPANCEE CLA GAS ONSHORE, L.P.  ALDORESS OF OPERATOR: CLATON OF WELL  OII CLATON OF WELL  OII CLATON OF WELL  OII CLATON OF WELL  CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA  TYPE OF SUBMISSION  TYPE OF MATCH  OINCE THATE  OINCE THA	DEPARTMENT OF NATURAL RESOURCES			I .
COLORIO DO RILLEON DO RELLEON DO RELLEON DO RECOMPLETE POR FACTOR  TOPE OF WELL  1.17YE OF OF OFERATOR:  KERR MCGEE OL & GAS ONSHORE, L.P.  3. ADDRESS OF OFERATOR:  4.10CARTION OF WELL  1.10TH OR WELL  1.10	SUNDF	RY NOTICES AND REPORTS C	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
NAME (PLEASE PRINT) NAME	current bottom-hole depth,	reenter plugged wells, or to drill horizon		1
ADDRESS OF OPERATOR:  3. ADDRESS OF OPERATOR:  PHONE NUMBER:  PHON				1
P.O. Box 173779 1099 18th Street, Suite 600, Denver, CO, 80217 3779  T20 929-6FMEAL BUTTES  LOCATION OF WELL  FOOTAGES AT SURFACE: 2381 FSL 0092 FWIL 2381 FSL 0092 F		NSHORE, L.P.		I .
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TYPE OF SUBMISSION  TYPE OF ACTION  CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA  TYPE OF SUBMISSION  TYPE OF ACTION     ACROSS   ALTER CASING   CASING REPAR   CASING REP	FOOTAGES AT SURFACE:			1
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Appreciated server will start:  12/18/2013    GHANGE TO PREVIOUS PLANS	TYPE OF SUBMISSION		TYPE OF ACTION	
Approximate date work will start:  12/18/2013  GHANGE TUBBIG GOMMING ENDOUGH FORMATIONS GOMMINGE PRODUCING FORMATIONS GOMMINGE PROPORT GUIDE OF PRACTICE TREAT GOMMINGE PRODUCING FORMATIONS GENERAL STATUS EXTENSION GENERAL GUIDE OF PROPORT GENERAL GUIDE OF PROPORT GENERAL GUIDE OF PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  KEYT-MCGEO GII & Gas Onshore, L.P. (KEYT-MCGEO) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  NAME (PLEASE PRINT) RAY E. Kelly 720 929 6582  TITLE REQUIATORY Analyst REQUIATORY Analyst SIGNATURE  DATE	/	ACIDIZE [	ALTER CASING	CASING REPAIR
CHANGE WELL STATUS	Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Date of Work Completion:    OPERATOR CHANGE	12/16/2013	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
OPERATOR CHANGE		DEEPEN [	FRACTURE TREAT	NEW CONSTRUCTION
SPUD REPORT   Date of Spud:   REPERFORATE CURRENT FORMATION   SIDETRACK TO REPAIR WELL   TEMPORARY ABANDON   TUBING REPAIR   VENT OR FLARE   WATER DISPOSAL   APD EXTENSION   APD EXTENSION   OTHER:   TUBING REPORT   Report Date:   WILLDCAT WELL DETERMINATION   OTHER   OTHER:   TUBING REPORT   SI TA STATUS EXTENSION   APD EXTENSION   OTHER   OTHER:   TUBING REPORT   TUBING REPORT   TUBING REPORT   SI TA STATUS EXTENSION   OTHER:   TUBING REPORT   OTHER:   TUBING REPORT   TU		OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
Date of Spud:    REPERFORATE CURRENT FORMATION   SIDETRACK TO REPAIR WELL   TEMPORARY ABANDON   TUBING REPAIR   WATER DISPOSAL   WATER DISPOSAL   WATER DISPOSAL   WATER SHUTOFF   SI TA STATUS EXTENSION   OTHER   OTHER    12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  NAME (PLEASE PRINT)  Kay E. Kelly 720 929 6582  NAME (PLEASE PRINT)  Regulatory Analyst  SIGNATURE    DATE		PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
DRILLING REPORT Report Date:  WILDCAT WELL DETERMINATION  12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  NAME (PLEASE PRINT) Ray E. Kelly  720 929 6582  PHONE NUMBER Regulatory Analyst SIGNATURE  DATE		REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
NAME (PLEASE PRINT)   PHONE NUMBER   Kay E. Kelly   720 929 6582   Name   PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.   Approved by the Utah Division of Oil, Gas and Mining   October 17, 2013   By:   Name   Phone Number   Title   Regulatory Analyst   Signature   Date   Da		TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DAME (PLEASE PRINT)   PHONE NUMBER   TITLE   Ray E. Kelly   720 929 6582   SIGNATURE   OTHER		WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Kerr-McGee Oil & Gas Onshore, L.P. (Kerr-McGee) respectfully requests an extension to this APD for the maximum time allowed. Please contact the undersigned with any questions and/or comments. Thank you.  NAME (PLEASE PRINT)  Kay E. Kelly  PHONE NUMBER  TITLE  Regulatory Analyst  SIGNATURE  PHONE NUMBER  TITLE  Regulatory Analyst  DATE	Report Bate.	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kay E. Kelly 720 929 6582 Regulatory Analyst  SIGNATURE DATE	Kerr-McGee Oil & G an extension to this	Sas Onshore, L.P. (Kerr-McGe APD for the maximum time a	e) respectfully requests allowed. Please contact	Approved by the Utah Division of Oil, Gas and Mining  Date: October 17, 2013
SIGNATURE DATE				
	SIGNATURE		DATE	

Sundry Number: 43862 API Well Number: 43047533320000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047533320000

API: 43047533320000 Well Name: MU 921-20L

Location: 2381 FSL 0082 FWL QTR NWSW SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 12/18/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

owing is a checklist of sol	me items related to the application, which should be verified.
• If located on private lar Yes  No	nd, has the ownership changed, if so, has the surface agreement been updated? 🔵
	rilled in the vicinity of the proposed well which would affect the spacing or siting ocation?  Yes  No
Has there been any uni proposed well?     Y	it or other agreements put in place that could affect the permitting or operation of the second of t
Have there been any cheproposed location?	nanges to the access route including ownership, or rightof- way, which could affect Yes 📵 No
• Has the approved sour	ce of water for drilling changed? 🔘 Yes 📵 No
, i	nysical changes to the surface location or access route which will require a change in iscussed at the onsite evaluation? 🔵 Yes 📵 No
• Is bonding still in place	e, which covers this proposed well? 🃵 Yes 🔘 No
nature: Kay E. Kelly	Date: 10/16/2013

Sig

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 57944 API Well Number: 43047533320000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING			5.LEASE DESIGNATION AND SERIAL NUMBER: UTU0575
SUNDR	Y NOTICES AND REPORTS ON	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly der reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME: MAVERICK
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: MU 921-20L
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047533320000
<b>3. ADDRESS OF OPERATOR:</b> P.O. Box 173779 1099 18th	Ph n Street, Suite 600, Denver, CO, 80217 3	HONE NUMBER: 779 720 929-6	9. FIELD and POOL or WILDCAT: 1NATURAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2381 FSL 0082 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	<b>IIP, RANGE, MERIDIAN:</b> 20 Township: 09.0S Range: 21.0E Meridia	n: S	STATE: UTAH
11. CHECK	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
11/19/2014	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
40 DECODINE DRODOCED OR	COMPLETED OPERATIONS. Clearly show all p	onice	In the malument of
Kerr-McGee Oil & G an extension to this	as Onshore, L.P. (Kerr-McGee APD for the maximum time all with any questions and/or com	) respectfully requests owed. Please contact	Approved by the Utoke Divide 25 of 2014 Oil, Gas and Mining
			Date:
			By: Lacylll
NAME (PLEASE PRINT)	PHONE NUMBER		
Kay E. Kelly	720 929 6582	Regulatory Analyst	
SIGNATURE N/A		<b>DATE</b> 11/19/2014	

Sundry Number: 57944 API Well Number: 43047533320000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047533320000

API: 43047533320000 Well Name: MU 921-20L

Location: 2381 FSL 0082 FWL QTR NWSW SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 12/18/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, h Yes  No	nas the ownership changed, if so, has the surface agreement been updated? 🔘
Have any wells been drilled requirements for this locat	d in the vicinity of the proposed well which would affect the spacing or siting ion?  Yes  No
Has there been any unit or proposed well?	other agreements put in place that could affect the permitting or operation of this  No
Have there been any chang proposed location?     Y	ges to the access route including ownership, or rightof- way, which could affect the es
• Has the approved source o	f water for drilling changed? 🔘 Yes 🃵 No
	cal changes to the surface location or access route which will require a change in ssed at the onsite evaluation? ( Yes ( No
• Is bonding still in place, wh	nich covers this proposed well? 🌘 Yes 🔘 No
nature: Kay E. Kelly	Date: 11/19/2014

Sig

Title: Regulatory Analyst Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 68188 API Well Number: 43047533320000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU0575	
SUNDR	RY NOTICES AND REPORTS O	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: MAVERICK
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: MU 921-20L
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047533320000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	<b>PHONE NUMBER:</b> 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5.00%TUBRAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2381 FSL 0082 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 20 Township: 09.0S Range: 21.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATI	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE [	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
12/4/2015	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN [	FRACTURE TREAT	☐ NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	WATER SHUTOFF	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:			
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Kerr-McGee Oil & G an extension to this	COMPLETED OPERATIONS. Clearly show all Gas Onshore, L.P. (Kerr-McGe APD for the maximum time a with any questions and/or co	e) respectfully requests allowed. Please contact	Approved by the Unebenholeron7of2015 Oil, Gas and Mining
			Date:
			By: Dangelle
			7 0
NAME (PLEASE PRINT) Jennifer Thomas	PHONE NUMBE	R TITLE Regulatory Specialist	
SIGNATURE	720 929-6808	DATE	
N/A		12/4/2015	

Sundry Number: 68188 API Well Number: 43047533320000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047533320000

API: 43047533320000 Well Name: MU 921-20L

Location: 2381 FSL 0082 FWL QTR NWSW SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 12/18/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated?  Yes  No
<ul> <li>Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?</li> <li>Yes</li> <li>No</li> </ul>
• Has there been any unit or other agreements put in place that could affect the permitting or operation of this proposed well? Yes No
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes No
• Has the approved source of water for drilling changed?   Yes  No
<ul> <li>Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?</li> <li>Yes</li> <li>No</li> </ul>
• Is bonding still in place, which covers this proposed well?   Yes   No
nature: Jennifer Thomas Date: 12/4/2015

Sig

Title: Regulatory Specialist Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Sundry Number: 76065 API Well Number: 43047533320000

	STATE OF UTAH		FORM 9
DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU0575	
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME: MAVERICK
1. TYPE OF WELL Oil Well			8. WELL NAME and NUMBER: MU 921-20L
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		<b>9. API NUMBER:</b> 43047533320000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	<b>PH</b> n Street, Suite 600, Denver, CO, 80217 37	<b>ONE NUMBER:</b> 79 720 929-6	9. FIELD and POOL or WILDCAT: 415.ATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 2381 FSL 0082 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	<b>IIP, RANGE, MERIDIAN:</b> 20 Township: 09.0S Range: 21.0E Meridian	n: S	STATE: UTAH
11. CHECK	K APPROPRIATE BOXES TO INDICATE N	NATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
11/4/2016	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion:	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
SPUD REPORT Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT	☐ WATER SHUTOFF ☐	SI TA STATUS EXTENSION	✓ APD EXTENSION
Report Date:	WILDCAT WELL DETERMINATION	OTHER	OTHER:
12 DESCRIBE PROPOSED OR	COMPLETED OPERATIONS. Clearly show all p	ortinent details including dates, d	<u>'</u>
Kerr-McGee Oil & G an extension to this	as Onshore, L.P. (Kerr-McGee) APD for the maximum time allowith any questions and/or com-	respectfully requests owed. Please contact	Approved by the Web (12016 Oil, Gas and Mining
			Date:
			By: Daggill
NAME (PLEASE PRINT)	PHONE NUMBER	TITLE	
Candice Barber	435 781-9749	HSE Representative	
SIGNATURE N/A		<b>DATE</b> 11/4/2016	

Sundry Number: 76065 API Well Number: 43047533320000



## The Utah Division of Oil, Gas, and Mining

- State of Utah
- Department of Natural Resources

**Electronic Permitting System - Sundry Notices** 

## Request for Permit Extension Validation Well Number 43047533320000

API: 43047533320000 Well Name: MU 921-20L

Location: 2381 FSL 0082 FWL QTR NWSW SEC 20 TWNP 090S RNG 210E MER S

Company Permit Issued to: KERR-MCGEE OIL & GAS ONSHORE, L.P.

Date Original Permit Issued: 12/18/2012

The undersigned as owner with legal rights to drill on the property as permitted above, hereby verifies that the information as submitted in the previously approved application to drill, remains valid and does not require revision. Following is a checklist of some items related to the application, which should be verified.

• If located on private land, has the ownership changed, if so, has the surface agreement been updated? Yes  No
• Have any wells been drilled in the vicinity of the proposed well which would affect the spacing or siting requirements for this location?  Yes  No
• Has there been any unit or other agreements put in place that could affect the permitting or operation of thi proposed well?   Yes  No
• Have there been any changes to the access route including ownership, or rightof- way, which could affect the proposed location?  Yes No
• Has the approved source of water for drilling changed? 🔵 Yes 📵 No
• Have there been any physical changes to the surface location or access route which will require a change in plans from what was discussed at the onsite evaluation?   Yes  No
• Is bonding still in place, which covers this proposed well?   Yes   No
nature: Candice Barber Date: 11/4/2016

Signature: Candice Barber **Date:** 11/4/2016

Title: HSE Representative Representing: KERR-MCGEE OIL & GAS ONSHORE, L.P.